

**Claims****Rolling bearing in aircraft**

1. A single-row or multi-row rolling bearing (1, 2) having thin-walled raceways (3, 4, 5), characterized in that the raceways (3, 4, 5) consist of a martensitic, fully hardened steel and have the following features:

- a surface hardness (7, 7a) of  $\geq 613$  HV (56 HRC) in the region of the running surfaces,
- a core hardness (8) of  $\geq 285$  HV (28 HRC),
- a difference ( $\Delta$ ) between surface hardness and core hardness of  $\geq 150$  HV (9 HRC),
- the core hardness being reached at a depth of between 8% of the rolling body diameter and 90% of the wall thickness in the race base beneath the race,
- a ratio of the pitch circle diameter  $T_k$  to the rolling body diameter  $D_w$  of  $\geq 20$ .

2. The rolling bearing as claimed in claim 1, characterized in that the hardness at a depth of 4% of the rolling body diameter  $D_w$  is at most 70 HV (4 HRC) lower than at the surface.

3. The rolling bearing as claimed in claim 1, characterized in that the raceways (3, 4, 5) consist of a corrosion-resistant steel.

4. The rolling bearing as claimed in claim 1, characterized in that the raceways (3, 4, 5) are provided with securing flanges and/or reinforcing elements.

5. The rolling bearing as claimed in claim 1, characterized in that the rolling bodies (6) consist of fully hardened, martensitic rolling bearing steel or of surface-hardened steel or of corrosion-resistant steel or of ceramic.

6. The rolling bearing as claimed in claim 5, characterized in that the rolling bodies are balls.

7. The rolling bearing as claimed in claim 5, characterized in that the rolling bodies are rollers.